

M-744

Y/HG-0115



**NUCLEAR DIVISION**  
INTERNAL CORRESPONDENCE

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Determination of Organic Mercury in Sediments

Three sediment samples from New Hope Pond were analyzed for organic mercury. (Frozen samples were obtained from Ralph Turner.)

Organic mercury was extracted as a bromide species into toluene. A 1% solution of cysteine stripped the organic mercury from the toluene. Total mercury was determined in the cysteine solution using  $\text{HNO}_3\text{-HClO}_4$  oxidation, cold vapor AA.

The following results were obtained:

<u>Sample No.</u>	<u>Organic mercury, <math>\mu\text{g/g}</math></u>	<u>Total Hg</u>
NHP - 3	0.04	116
NHP - 6	0.06	174
NHP - 13	0.11	220

Quality assurance included the following items:

1. Extraction of standards prior to sample analysis. Greater than 80% was recovered in every case.
2. Extraction of two or more aliquots of each sample.
3. Spiking samples prior to extraction.

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